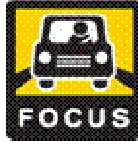


Vermont Strategic Highway Safety Program Update

October 1, 2009





Focus on Safety

Vermont Strategic Highway Safety Program Status

April 28, 2010

This is the second progress report of the *Vermont Strategic Highway Safety Plan* (SHSP) which has been in place since December 2006. The efforts of the SHSP stakeholders continue to make Vermont highways safer as seen in the data.

Background:

The SHSP represents an innovative approach to the development of highway safety plans. By engaging diverse stakeholders, it generates enthusiasm and support from both traditional and non-traditional safety partners. The unique approach and partnerships begun in the plan's first year have been extended and expanded to move the SHSP into its implementation phase using even more "out-of-the-box" approaches along with standard practices to achieve the goal of reducing serious injury and fatal crashes on Vermont's highways.

The SHSP initiative was launched by Governor Douglas in December 2005. This is a partnership between state and federal agencies and private sector groups including VTrans, Safety, Health, Education, Labor, FHWA, AAA, and the Vermont Youth Safety Council. It uses a collaborative approach in statewide planning and includes over 100 participants. Safety partners ranged from the obvious public sector agencies to municipalities, insurance agencies, regional planning commissions, legislators, trucking companies, emergency responders, driver training organizations, student groups, railroads, transportation contractors, and private corporations and citizens. Every state has a Highway Safety Program; however, Vermont is truly unique in its ability to pull together stakeholders for a common goal. We have an attitude of "just do it".

The SHSP safety partners have made good progress since the December 2006 kickoff meeting. The SHSP program is organized around four functional areas that address the most critical components of highway safety. Those are:

- Transportation infrastructure
- Law compliance and enforcement
- Outreach and training
- Legislation to support the above functions

Staffs from multiple state agencies, regional organizations and the private sector participate on committees charged with planning and implementing the above functions. These committees developed 35 strategies that support the SHSP critical emphasis areas, and are currently working with appropriate stakeholders to help implement them. Strategies are trackable and have performance measures linked to crash data. Note that the SHSP web

page at <http://highwaysafety.vermont.gov/> has detail information on specific SHSP strategies, action plans, and it contains meeting notes of the various committees.

The overall effort is overseen by a Core Group consisting of representatives from state agencies, regional organizations and other stakeholders. Meetings of the larger stakeholders group were held in April and December 2007.

Current Efforts:

The last progress report was submitted in June 2008:

<http://highwaysafety.vermont.gov/Documents/Implementation%20Progress%20Report.pdf>

. Most of the earlier SHSP efforts focused on highway infrastructure improvements such as rumble strips, pavement edges, low-cost town safety improvements, and more. These are relatively easy to do and to measure. The current SHSP efforts, however, are shifting to the more difficult area of behavioral changes. These can have the greatest impact improving highway safety but are more difficult to measure.

Behavioral changes include such areas as cell phone use, texting, aggressive driving, seatbelts, and child restraints and they often require legislative changes. Nineteen bills were introduced in the 2009 session related to highway safety. Although only two were signed into law, the remaining bills will carry over to 2010. SHSP Core Group members worked with their respective agencies and were influential in shaping the bills. Legislation related to seatbelts and cell phones is still active and a high priority within the SHSP Group.

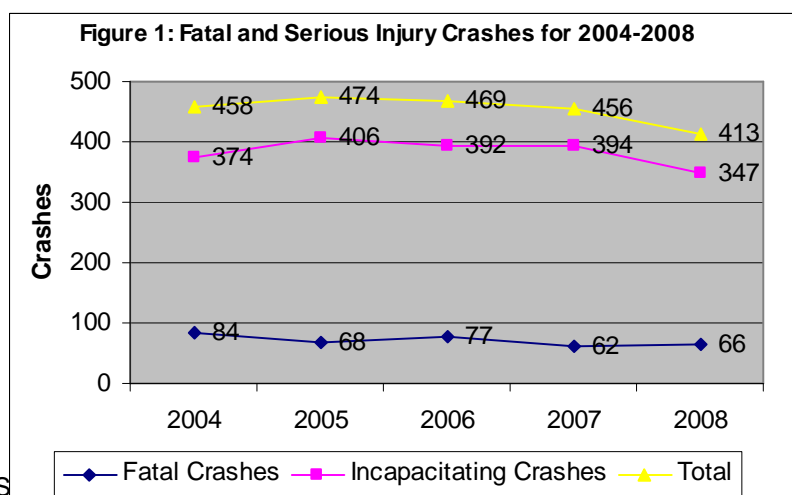
All of these efforts support the primary SHSP goal of:

Reduce the five-year average number of fatal & incapacitating injury crashes to 350 or lower each year by 2012 (from 468 for the 1999-2003 period), representing a reduction of 25%.

Associated goals are:

- To reduce the five-year average number of fatal crashes to 50 or lower and the five-year average number of incapacitating injury crashes to 300 by 2012;
- To reduce the five-year average number of fatalities to 60 or lower and the five-year average number of incapacitating injuries to 350 by 2012.

The five-year average through 2008 is 379 incapacitating crashes and 71 fatal crashes for a total of 450—See Figure 1. The figures are better when looking at just 2008: 347 incapacitating crashes and 66 fatal crashes. Although one year does not make a trend, the figures appear to be heading in the right direction. .





Focus on Safety

SHSP Infrastructure Group Progress Report

Within the Strategic Highway Safety plan, many of the accomplishments relate to the highway infrastructure. This is partly because highway changes are easier and quicker to implement since they do not require legislative, policy, or driver-behavior changes.

The Vermont Agency of Transportation (VTrans) and municipalities are responsible for safety improvements related to roadway and intersection geometry, markings, pavement condition, signs, signals, rumble strips, etc. The goal of infrastructure improvements is twofold:

- Reduce the likelihood of crashes
- Reduce the consequences of crashes that do occur.

This document describes Critical Emphasis Areas (CEAs) for infrastructure and the supporting strategies to make the highway system safer. Much work has been done already, and more work is underway as described below.

Critical Emphasis Area 1: Keeping Vehicles on the Roadway and Minimizing the Consequences of Leaving the Roadway

Strategy 1 Pilot Program to implement low cost safety improvements on rural local roads.

VTrans implemented a High Risk Rural Roads Program (HRRR) to address safety issues on roadways classified as rural major collectors, rural minor collectors, or rural local roads. Typically, these roadways do not have good crash statistics and have traditionally been neglected for safety improvements. Safety problems do not always show up in the crash data system although law enforcement, town managers, road foremen and others can provide anecdotal information.

VTrans worked with the Regional Planning Commissions (RPCs), the Chittenden County Metropolitan Planning Organization (CCMPO) and municipalities to identify low-cost safety improvements on rural collectors and local roads. Once identified, Road Safety Audit Reviews (RSARs) were conducted to further define safety problems and recommend appropriate solutions.

In 2007, 14 rural corridors containing high crash locations were reviewed and 19 horizontal curves were evaluated through the HRRR program. In 2008, towns implemented sign and pavement improvements at these 33 locations. The cost was about \$80,000 with individual improvements ranging from \$600 to \$5000. The program was highly successful and well received by towns.

In 2008, stakeholders identified additional locations with safety problems and recommended low cost improvements to address these problems in 2009. Program highlights are listed below:

- \$340,000 allotted for 2008 HRRR locations of which \$205,000 has been granted to towns.
- 26 corridors within 24 towns were reviewed.
- 30 site specific locations within 25 towns were reviewed.

Examples of projects are:

- Guardrail installation on Union Valley Rd. in Norwich
- Sight distance improvement on Rose Hill Rd. in Woodstock
- 8 projects have been completed. Towns have until November 2009 to complete the remaining projects.

In 2009, the regions and VTrans identified 29 potential safety projects under the HRRR Program. Those will be awarded grants and completed in 2010.

Strategy 2 Provide Improved Delineation in Low Visibility Conditions

VTrans is improving delineation through improved traffic-control-devices and recessed-durable-markings.

Traffic control devices are included in the Class II Town Highway Grant program. As part of those grants, VTrans requires that all permanent traffic control devices affected by these grants be brought into conformance with the national MUTCD standard. The first year of implementation was 2008 and it is continuing into 2009 and 2010.

Costs of upgrading traffic control devices associated with Class II paving projects are reimbursable—material costs are covered by VTrans Safety Funds and installation costs are covered by the Highway Grant. Highlights from this program include:

- Processed, so far, 13 requests for reimbursement, totaling ≈ \$21,000.
- Improvement costs per town ranged from ≈ \$400 to ≈ \$6,000.
- Examples include sign upgrades on:
 - Corinth, Goose Green Rd.
 - Walden, Lower Cabot Rd. & Upper Cabot Rd.
 - Monkton, Ferrisburgh Hollow Rd.

Recessed-durable-markings also improve highway delineation. These markings are less susceptible to snowplow and traffic damage. In 2009,

VTrans incorporated recessed durable markings on 67 miles of limited access state highways for greater visibility and durability (Project NH MARK 202). This technique is being expanded to towns. Danville and St. Albans will install these markings in 2009 and 2010 respectively.

Strategy 3 Provide edgeline or centerline rumble strips
(Also CEA 7 Strategy 2, Install shoulder and/or centerline rumble strips)

Properly located rumble strips alert drivers and give them time to take corrective action to stay in their lane. VTrans has installed rumble strips on the Interstates, and is beginning to install them on secondary highways.

Two such projects are:

- The US 4 over Mendon Mountain constructed in 2009 (NH MARK 203) included 6.3 miles of centerline rumble stripes.
- The Sheldon Enosburg VT 105 paving project, to be constructed in 2010, will also feature 8 miles of centerline rumble strips.

The VTrans Materials and Research section will be studying various aspects of the project, including the effect on the pavement condition, maintenance operations, and public reaction.

Strategy 4 Improve advanced warning and delineation of unexpected changes in horizontal alignment

As part of the 2007 implementation of the High Risk Rural Roads, VTrans worked with the RPCs and CCMPO to identify problem curves on rural local roads, and on major or minor collector town highways. Actual crash data, road geometry (FHWA has found that curves with radii of less than 1500 feet are crash prone) and input from municipalities drove the process.

After problem areas were identified, road safety audits were conducted at each potential site. Nineteen (19) horizontal curves were reviewed and treated with signs.

Strategy 5 Improve roadside geometry by eliminating shoulder drop-offs, and providing safer side slopes and ditches

Steep shoulder drop-offs may cause drivers to over-steer when attempting to re-enter the travel lane from the shoulder. That, in turn, may cause the vehicle to head into oncoming traffic. A new VTrans construction standard for paving calling for angled edges (“safety edge”) was incorporated into standard E-108 and implemented in 2009 for improved recoverability on pavement edges. Most paving projects in 2009 have the safety edge.

Critical Emphasis Area 3: Improving the Design and Operation of Intersections

Strategy 2 Improve visibility by providing enhanced signing and delineation

VTrans implemented interactive signing that warns side road drivers of approaching mainline vehicles at an intersection in Castleton. This reduced the number of conflicts by 37%. VTrans is expanding this successful approach at other locations.

Strategy 3 Improve maintenance and visibility of signs and markings

VTrans developed a program for funding upgrades of signs and pavement markings on town highways (roadway and intersections) in conjunction with the Class 2 Town Highway Paving Program. Implementation began in 2008.

Strategy 4 Improve geometry at intersections

Completed construction of safety projects in Swanton (I-89 ramps/VT 78), Franklin (VT 120/VT 236), and Hinesburg (VT 116/Charlotte Rd). Continued development of plans for intersection safety projects in Barre Town, Barre City, Hinesburg, Rutland, and Wilmington.

Additionally, VTrans installed roundabouts for the intersections of Route 2/302 in Montpelier and for Route 302/110 in Barre Town. Roundabouts are being designed for other locations around the state including VT-100/15 in Hyde Park and US 7 (Shelburne Street Rotary) in Burlington.

Other infrastructure related safety activities 2007 - 2009:

Skid Resistant Pavement:

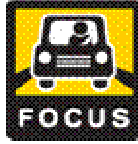
- Installed skid resistant pavement in Dover, Wells, and Searsburg.

State Highway Sign Replacements:

- Started work on 400 miles of state highway sign projects, about half of which will be constructed in 2009 and the other half in early 2010. These projects incorporated enhanced curve warning and delineation as well as improved signage at intersections.

Interstate Signs and Delineators:

- 110 miles of interstate sign projects on I-89 (Royalton – Highgate), to be constructed in 2010, will include ClearView font for guide signs for improved legibility, and larger delineators along mainline for improved visibility.
- 37 miles of interstate sign projects on I-91 (Lyndon – Derby) under construction in 2009 will include ClearView font for guide signs for improved legibility
- Installed upgraded signs on I-91, Ryegate – Lyndon, and I-93.



Focus on Safety

SHSP Outreach and Training Function Group Progress Report

Most of the SHSP Critical Emphasis Areas and strategies involve behavioral issues. Outreach and Training is an essential element in reducing crashes by changing driver habits and driver knowledge. Outreach and Training strategies in the SHSP are:

- Remedial driver education course
- Teen driver essential skills
- Improvement of initial driver education

Action plans including expected outputs and outcomes for these strategies are at <http://highwaysafety.vermont.gov/Draft%20Action%20Plans.htm>

The Outreach and Training Function Group has met every four to six weeks to review the status of the Critical Emphasis Area (CEA) strategies assigned to the Group. The 18 strategies are assigned to seven sub-committees.

The group decided to schedule monthly meetings and dedicate each agenda to review action plans for specific CEA strategies.

On March 20th 2008, the Group held its first dedicated meeting to consider a Remedial Driver Education Course. The agenda was developed from the Action Plan draft and included a guest speaker who conducts a remedial program in New Hampshire. Areas of discussion were: programs in other states; the need for this type of program in Vermont; what data exists on problem drivers in Vermont and other states; the level of support from law enforcement, the court system and the Department of Motor Vehicles; the criteria that would initiate participation; the potential curriculum; possible incentives to encourage participation; and legislative status on a proposed bill introduced for a remedial program.

The following is a tentative 2008 meeting schedule dedicated to specific strategies:

- April 17 – Improve Initial Driver Education
- May 22 – Advanced Driver Training for Teens
- June 26 – Parental Accountability
- July 28 – Improve the Education of Novice Drivers
- August 28 – High Crash Locations
- September 25 – Distracted Driving
- October 30 – Safety Rest Stops
- November 20 – Impairment

The Group plans to start a speakers forum tentatively titled, “Circles for Safety”, to make highway safety presentations throughout the state to various groups especially teen groups. In the past month one member made presentations to two insurance organizations focusing on seat belt use and teen driving programs.

AAA has recently introduced a new program, "Dare to Prepare". The program is a pre-permitting class designed to address various teen highway safety issues with parents, teens and highway safety advocates. Their first program was held at U32 High School on March 5th with two members of the Outreach and Function Group participating. Our Group looks to promote and be active participants in this worthwhile program.

Working with our sub-committee on awareness of consequences, a teen group has recently completed a DUI video to create awareness of the consequences of driving under the influence. The video will be used on community television stations.

Last fall three members of our Group attended the Governor's Park Bench Yoga press conference at the Williston North Rest Center. The Park Bench Yoga initiative is a plan to install Yoga benches in many of the state's rest centers to encourage exercise as a means of avoiding fatigue while driving. Our Group plans assist on the promotion of this initiative.



Focus on Safety

SHSP Law Enforcement Group Progress Report

One of the SHSP Critical Emphasis Areas (CEA) is to curb speed and aggressive driving. Enforcement is an important strategy supporting that goal.

The SHSP Law Enforcement Group is composed of law enforcement officers and engineers. Recent efforts concentrated on the implementation of CEA 6, Curbing Speeding and Aggressive Driving and in particular on Strategy #3, Convince the Public that Apprehension is Likely. Major activities included the development of an action plan, the conduct of research and a speed management workshop as well as the identification of legislative initiatives.

The SHSP Law Enforcement Group developed a plan to deploy high-visibility enforcement efforts that strategically address speeding. The enforcement will carefully analyze the locations and conditions most common in speed-related crashes that cause injury or death within a specific geographic area. Experience shows that regular enforcement at a high-risk location changes drivers' behavior especially on a regularly traveled commuter route.

The plan calls for the review of crash data to identify road segments and intersections that have been sites of speed-related injury and fatal crashes. The reviewers use actual data to select enforcement zones and to identify the 85th percentile speed. That, in turn, will determine the enforcement thresholds that target the high-risk driver as well as the occasional violator. In addition, the plan calls for media outreach. Enforcement will be for 30 hours per month for three months during day/time & time of year of the greatest crash risk. That will be followed by ten hours for the next three months. High-visibility enforcement at high-risk areas will send a clear message – Don't speed!

To identify possible enforcement zones, research was conducted on fatal and injury crashes related to speeding, driving too fast for conditions, and driving in a careless, negligent or aggressive manner. The research took place in Chittenden, Rutland, Washington and Windsor counties between January 1, 2004 and December 31, 2006. (Resources were not available to do an analysis statewide.)

The research identified the months of the year that have the highest number of speed related crashes, the days of the week for these months, the hours during which enforcement should take place as well as the roads where enforcement should be deployed. The research produced crash risk maps that are an excellent tool to identify the worst top 20% road segments within each county (see the *Speed Crash Map Risk* example).

The research demonstrated that there were local differences with respect to the temporal aspects of speed which must be considered in adjusting enforcement activities to reduce

crashes. It also showed that enforcement efforts must be directed towards local and state roads in addition to the Interstate system.

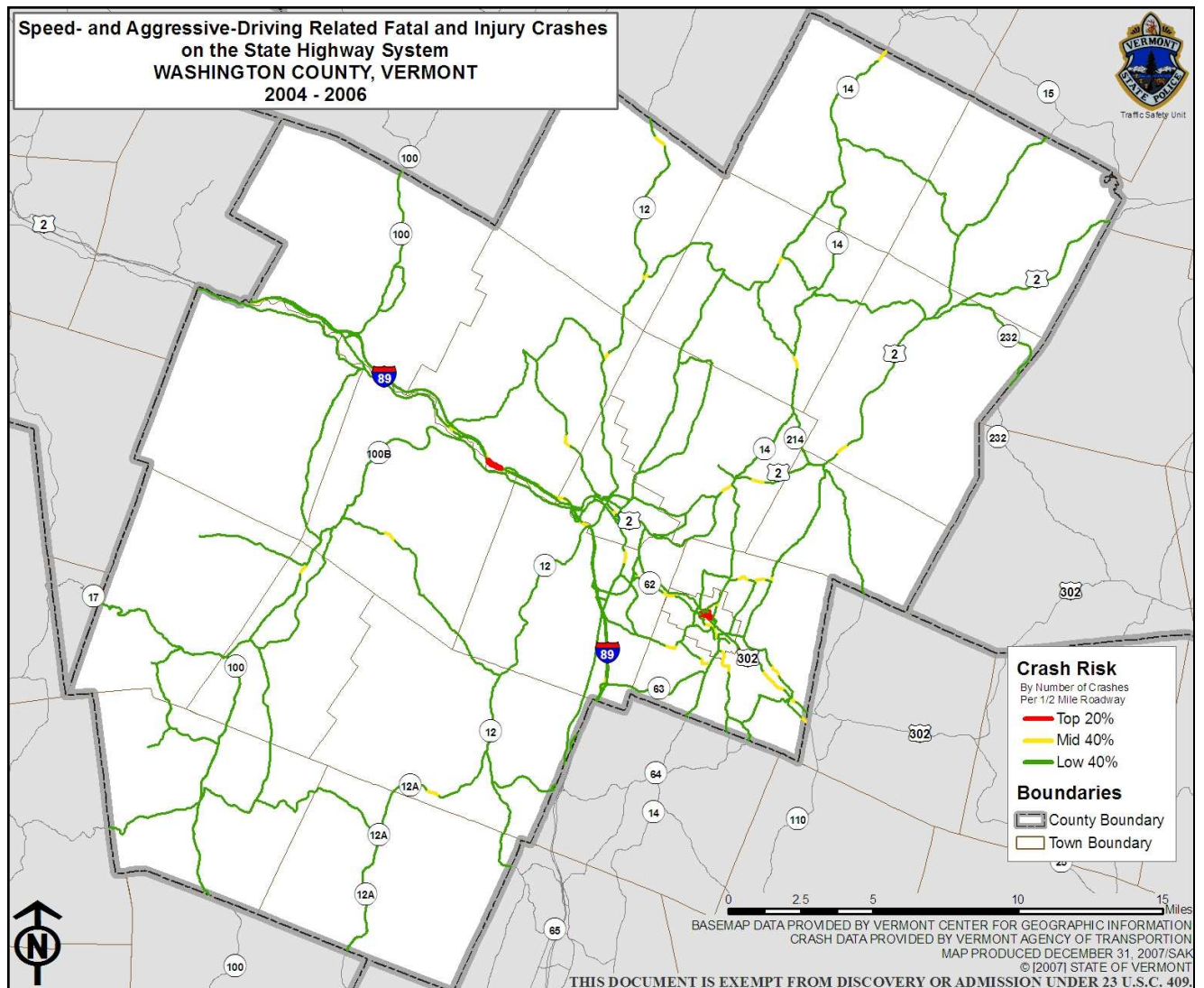
A speed management workshop was held in Chittenden County in November 2007 at which several law enforcement officers, town officials and other state and local representatives convened. In the morning, attendees received information on how speed limits were set, and learned that motorists that are speeding above the speed most people are comfortable driving (85th percentile speed) are more prone to be in a serious crash. In the afternoon, a presentation on the speed related crash data for Chittenden County was made, and a coalition was formed to address the problem roads identified. This coalition met one more time following the workshop in December. Other meetings are planned.

The SHSP Law Enforcement Group also discussed possible legislation for the 2009-2010 session that would help speed enforcement.

Over a period of time, the results of these efforts should be seen in crash data statistics. The measure of success is:

- Reduction in the number of high speeders (site specific)
- Overall reduction in the number of speed related crashes

Exhibit 1. Speed and Aggressive Driving Crash Map, Washington County, Vermont





Focus on Safety

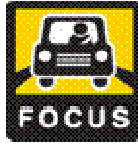
Legislative Initiatives

There are a number of SHSP strategies that require legislation before they can be implemented. This is especially true for strategies that affect behavior. 21 safety related bills were introduced in 2009. Agencies represented in the Core Group developed position papers on some of these. The Core Group is supportive of cell phone legislation and legislation related to seatbelts.

Table 1: Safety related legislation introduced in 2009-2010 Legislative session.

Bill Number	Purpose	Location
H.5	Permits immobilization and forfeiture of a vehicle for first offense of DUI with death or serious injury resulting	House Judiciary
H.20	Creates more serious penalties for operating a vehicle while under the influence of alcohol if a child is in the operator's vehicle at the time of the offense. \$300 fine or six months in jail or \$5,000 fine or 10 years if DUI results in death or serious bodily injury to the child.	House Judiciary
H.32	Establishes a conditional operator's license which may be issued by the court to allow a person with a suspended license for DUI to drive to work.	House Judiciary
H.68	Allows only hands-free telephones or communication devices to be used by motor vehicle operators	House Judiciary
H.70	Mandates the wearing of a motorcycle helmet for anyone under age 21, or anyone who has had a motorcycle license for less than one year. The bill gives everyone else the option of wearing a helmet.	House Transportation
H.77	Lower drinking age to 18	General, Housing & Military Affairs
H.378	Conduct a study on lowering the drinking age to 18	General, Housing & Military Affairs
H.90	A comprehensive bill that: a) requires a person to have insurance in order to register a motor vehicle b) prohibits a person from registering a motor vehicle if the license or learner's permit has been suspended or revoked c) establishes criminal penalties for permitting an unlicensed person to operate a motor vehicle if death or serious bodily injury results from a crash d) removes the option of community service for a third or subsequent DUI offense and instead calls for six months of jail time e) creates a mandatory minimum five-year jail term for DUI with death resulting, and f) permits the forfeiture of a vehicle operated in violation of a parole condition that prohibits the operator from driving.	House Judiciary

H.96	Prohibits drivers from having animals in their lap while driving	House Transportation
H.146	Prohibits a driver from using a mobile telephone while operating a motor vehicle	House Transportation
H.147 AKA: Highway Traffic Safety Act of 2009	Mandates: a) nighttime curfews for 16 and 17-year old motorists b) prohibits hand-held electronic devices for all drivers, and c) changes Vermont's secondary seatbelt law to a standard or primary law.	Passed the House 104-40 on 4/15. Referred to Senate Rules Committee.
H.198	Requires headlights to be turned on whenever windshield wipers are in use.	House Transportation
H.277	Bans use of a cell phone while driving. Enforcement would only occur if the operator is detained for an unrelated offense.	House Transportation
H.361	Establishes a dangerous driving complaint data base allowing motorists to report dangerous drivers and type of dangerous driving.	House Judiciary
H.363	Courts may order the installation of an ignition lock on a motor vehicle for a second or subsequent offense of driving under the influence or if the offender has a 0.15 BAC.	House Transportation
H.387	Requires auto insurance policies to include \$25-thousand for medical costs.	House Commerce
H.398	Reduces the maximum speed limit in Vermont to 55 miles per hour	House Transportation
H.428	One-year driver's license suspension when crash has serious injury or fatality	House Transportation
S.67	Requires all motorcycle head gear to meet Federal motor vehicle safety standards.	Passed Senate & House – Signed into law
S.70	Clarifies procedure for reinstatement of a driver's license based on total abstinence from alcohol and drugs.	Passed Senate & House – Signed into law
S.103	Allows DMV to issue an ignition interlock driver's license to a person whose driver's license has been suspended for operating under the influence.	Senate Transportation



Focus on Safety

Other Highway Safety Related Efforts

Many highway safety activities occur outside of the SHSP initiatives. The Department of Public Safety (DPS) is responsible for the multi-agency Governor's Highway Safety Program (GHSP), and the Department of Labor, the Department of Health, and the private sector are also involved in safety initiatives. A few of those are described below:

Project Road Safe Newsletter from the Vermont Department of Labor:

Thousands of businesses in Vermont are dependent on company-owned or employee-owned vehicles for the delivery of products and/or services. The Department of Labor publishes a monthly *Project RoadSafe Newsletter* that contains highway safety information and figures. Check it out at <http://labor.vermont.gov/> and click the *Project RoadSafe Newsletter* link on the right.

Each month the newsletter targets businesses and individuals with traffic safety information. Examples are: cell phone usage, drowsy driving, seat belt usage, contributing factors to distracted driving, etc. The newsletter constantly speaks of the social and economic costs of crashes that are borne by all businesses.

Additionally, *Project RoadSafe* has produced several brochures about workplace traffic safety that are available on request, or can be downloaded from the Vermont Department of Labor website listed above.

Seat belt usage from the Department of Public Safety (DPS):

Seat belts save lives. Increasing seat belt usage is one of the most effective ways reduce fatalities and injuries. The Department of Public Safety initiated a *Click It or Ticket* campaign in 2002. *Click It or Ticket* is a combination of intensive media and high visibility enforcement. The model is based on years of research proving that for many who don't buckle up - especially young drivers - the possibility of receiving a ticket is a more powerful incentive than the threat of injury or death. Seat belt usage surveys before and after the campaign indicate seat belt usage increases. It's noteworthy that seat belt usage was in the 60% range in 2000. In May 2008 the usage was 82% prior to the *Click it or Ticket* campaign. Although Vermont must make further improvements, the *Click It or Ticket* campaign is working.

To further get the seat belt message out, the American Red Cross Blood Services partnered with the Governor's Highway Safety Program to deliver two very important messages during the month of May: "Give Blood and Buckle Up. Both actions save lives".

Direct Enforcement Programs

Vermont State Police, County Sheriffs, Municipal Police, Department of Motor Vehicles, and Constables who are active in traffic enforcement participate in Driving Under the Influence (DUI) Enforcement Grants. In order to qualify, agencies analyze local crash data to identify problem locations and times. Agencies cooperate with each other to organize countermeasures and to increase visibility of the campaigns. The grants are guided by policy created by a working group of local, county and state police officials and highway safety program representatives. Enforcement activities funded by these grants include representatives from multiple law enforcement agencies. Some teams include persons from other interested groups such as DMV Commercial Vehicle Enforcement, Department of Liquor Control, Department of Fish and Wildlife, State's Attorney's Office, and members of the media and press. Agencies working these details maintain a high visibility profile and make as many stops/contacts as possible. Team members actively and aggressively enforce all motor vehicle, highway safety, and criminal and civil laws as appropriate. Teams conduct education and special enforcement patrols including highway safety and sobriety checkpoint operations. Activities are reported in detail to the Governor's Highway Safety office. Two examples of Direct Enforcement Programs are:

- DUI Enforcement:

The DUI grants target areas and times of known DUI activity. For example, weekend nights in ski resort areas, Super Bowl Sunday, and the start of college terms. Grant applications must specify when extra officers will be used, and data must support such applications. In addition, we are requiring extra patrols dedicated to the national campaign pushes, or dictating specific times when some funding must be used to support state-wide efforts.

Four mobilizations are planned for 2008 - two for safety belts and two for impaired driving. If sufficient funds are available, each campaign will be backed by paid and earned media. The mobilizations will be planned and implemented by utilizing a task force of highly motivated officers and by providing time-targeted funds to local and sheriffs' departments. That will be coupled with intensive education and media coverage to create a very highly visibility campaign.

Additionally, Vermont participates in the nationwide "You Drink. You Drive. You Lose" crackdown that began in 1999. Research shows that highly visible enforcement and public awareness of the campaign deters impaired driving.

- Stop Teen Alcohol Risks Teams (START)

Stop Teen Alcohol Risks Teams (START) is a program managed by the Vermont Department of Health. It was started by the Vermont League of Cities and Towns as a direct result of alcohol-related teen deaths in Vermont. The League organized a training event for all interested Vermont police officers. The training focused on the community-school-police partnership in Arizona that is combating teen drinking. Vermont police officers established coalitions roughly based on county lines to address the teen drinking problem. The coalitions of officers from various local agencies

coordinate and act to interrupt teen-drinking events. The officers confiscate alcohol, cite underage drinkers and, whenever possible, identify the source of alcoholic beverages. The Office of Juvenile Justice and Delinquency Prevention (OJJDP) continues to provide overtime funding for response to reported underage drinking events. GHSP supports this program in any manner possible, knowing it gets underage drinkers off our roadways.

Enforcement Support

Enforcement is a critical part of the efforts to reduce crashes. The Governors Highway Safety Program GHSP supports a number of enforcement programs and activities including the following:

- Coordinator of Alcohol Traffic Safety Programs:

The legislatively established Coordinator of Alcohol Traffic Safety Programs monitors and coordinates all state and participating county and municipal programs that deal with alcohol traffic safety activities. Activities include prevention, education, enforcement, adjudication and rehabilitation. The Coordinator, in consultation with all involved state and local agencies, develops a cooperative and comprehensive plan that addresses several areas. Those are: reduce the incidence of drinking and driving in Vermont, study alcohol traffic problems, collect data for general and specialized use, and recommend law or rule changes to alcohol-use policy.

GHSP makes every effort to ensure enforcement dollars are spent for the greatest benefit; therefore DPS has created a small network of highly-qualified and well respected law enforcement liaisons. Each liaison has been assigned areas of responsibility to support local law enforcement by providing advice, data, communication and coordination among multiple agencies. In addition, the liaisons work to find ways to promote vigorous, effective and sustained enforcement of traffic laws on an ongoing basis. The law enforcement liaisons advise GHSP as to resources needed by enforcement agencies, and they help the agencies get the most out of GHSP programs. The law enforcement liaisons also provide training on traffic safety programs to any agency participating in the programs.

- Traffic Safety Resource Attorney:

The Traffic Safety Resource Attorney supports the efforts of all enforcement officers including State's Attorneys by providing legal support, training and advice, policy and procedure guidance and community education. Located in the Office of State's Attorneys, the Resource Attorney supports efforts to remove and sanction drivers arrested for driving after drinking. The Resource Attorney also provides legal support on appeals with statewide or constitutional impact or in areas where local prosecutors have limited experience. The Resource Attorney works with various agencies to improve DUI laws and their applications and the Department of Health to maintain acceptability of the DataMaster infrared breath testing equipment.

- Drug Recognition Expert Program:

The Drug Recognition Expert Program is supported by GHSP which provides funding for several activities. Those include training of additional officers, the annual conference, and ensuring that DRE tests are not discarded because of a lack of resources to pay for testing.

- GHSP Van and the Department of Liquor Control:

The Department of Liquor Control (DLC) has been using a GHSP van as a command post, a DUI processing center, and an educational display for several years. DLC appears at large public gatherings, county field days, festivals and sporting events where illegal alcohol activity can be expected. DLC has paid for most of the expenses of the van, but major systems have failed. DPS will replace this valuable resource for state law enforcement.

- Vermont Law Enforcement Challenge:

The Law Enforcement Liaison developed the Vermont Law Enforcement Challenge to encourage all departments to focus on traffic safety enforcement and education, and to maintain appropriate policies, training and procedures. Modeled on the IACP program, all Vermont entries are scored in Vermont to qualify for local prizes, and then are sent on to the national competition to be judged again by national standards. This provides departments two opportunities to achieve recognition and to be awarded equipment supporting traffic enforcement efforts.

- Traffic Safety Summit:

In 2006, Vermont held its first Traffic Safety Summit designed for enforcement and highway safety officials to learn from professionals around the country. GHSP intends to plan further Law Enforcement Conferences to continue learning, planning and networking opportunities on both a regional and statewide basis.

- Mobile Breath Alcohol Testing Vehicles (BAT-Mobiles):

GHSP purchased four Mobile Breath Alcohol Testing Vehicles (BAT-Mobiles), and is working with the Department of Health on replacing the old Datamasters with a newer model. GHSP also supports law enforcement with hand-held breath testers as part of our DUI Equipment Support Program. The BAT-Mobiles provide a means for law enforcement officers to conduct on-site, evidentiary tests of suspected impaired drivers. The capability to do on-site testing encourages sobriety checkpoints and alcohol enforcement at events where alcohol is present. This equipment gives enforcement agencies capability to process suspects at remote locations (i.e. at farm keg parties or informal camp sites). These roaming “billboards” contribute to high visibility enforcement. The new Datamasters will require training and support as they are brought into the system.

Education

- Child Passenger Safety Program :

The Child Passenger Safety Program is managed within GHSP. A statewide network of technicians, clinics, permanent fitting stations and periodic inspections is supported with data collection, supplies, training and public education.

- Youth Alcohol and Traffic Safety Program:

The Vermont Department of Liquor Control hosts the Youth Alcohol and Traffic Safety Program through a grant from GHSP. This statewide program uses teens for peer-to-peer education and training, along with activities related to traffic safety, such as promoting safety belt use and responsible driver and passenger decisions.

- Vermont Rider Education Program (VREP):

With the rise of motorcycle fatalities over recent years, GHSP will work to complement the Vermont Rider Education Program (VREP) of the Department of Motor Vehicles through a Motorcycle Safety Awareness Program. GHSP plans to work with a variety of partners to bring public education and enforcement support to highlight and mitigate the special problems confronting motorcyclists in Vermont.

- Vermont Workplace Traffic Safety Program Coordinator:

The Department of Labor houses the Vermont Workplace Traffic Safety Program Coordinator. The Coordinator works cooperatively within state government with occupational safety and health issues related to traffic safety such as occupant protection and impaired driving. The Coordinator also works with private sector business leaders as well as leaders of individual businesses to promote safety on the road and to encourage those leaders and managers to recognize the road as part of the workplace.

- Vermont Teen Leadership Safety Program:

The Vermont Teen Leadership Safety Program is a teen-led program exhibiting leadership and promoting positive role models in High Schools. Teens provide cross-age peer-to-peer training for elementary and middle schools. The annual Governor's Youth Leadership Conference is planned and executed by these students as are various events throughout the year to promote healthy life choices especially where roadway and traffic safety is concerned.

- Community Traffic Safety Program:

Vermont has only one remaining Community Traffic Safety Program; however, it is located in the Northeast Kingdom, one of the areas of the state in most need of traffic safety services with high DUI rates and low belt use rates.

- ENCARE:

ENCARE is emergency room nurses that volunteer to promote traffic safety including overseeing the THINK program that places road signs at the site of alcohol-related fatal crashes. GHSP supports these nurses through a small grant to help with presentations, equipment and education material.

- Education Traffic Safety Presentations:

It is always a goal of GHSP to start traffic safety messages as early as possible so safe habits are developed in childhood. GHSP supports the Elementary Education Traffic Safety Presentations to promote early traffic safety education in an age appropriate format.

Education Support

To the extent funding is available, paid media is utilized to support earned media and PSA material during our Click It or Ticket; You Drink, You Drive, You Lose; and Child Passenger Safety promotion campaigns. Messages and materials are developed and targeted to appropriate regions and audiences based on available data, surveys and crash data analysis. The GHSP continues to produce and air top commercial spots promoting highway safety messages and works in partnership with law enforcement agencies to get local press coverage of the issues.

Educational programs and activities require vehicles to move materials and equipment to support the efforts of the Child Passenger Program and the Teen Leadership Safety Program. Due to age and deterioration, the vehicles need replacement. These program specific vehicles allow our projects to continue in the most safe and efficient manner.

The annual Lifesaver “Highway Hero” Awards provides an opportunity to thank the many partners of GHSP who support our initiatives throughout the year. Many of our supporters work behind the scenes and this is a chance to point out all the good work that gets accomplished.

GHSP recognizes the value of “partnerships.” Therefore, over the past several years DPS has engaged in promotional partnerships with professional sports venues throughout the state. For example, DPS is the lead sponsor of the Vermont Voltage, a professional soccer team located in Franklin County. This area of the state has one of the worst safety belt rates in Vermont. By promoting the Voltage, the team promotes safety belt use by wearing the *Click It or Ticket* logo on their jerseys, and announcing safety belt messages at every home game. The team also has youth soccer camps and promotes child passenger issues at every camp.

The Rollover Convincer is a device that demonstrates the difference in a rollover crash between belted and unbelted occupant dummies. The unbelted dummies are thrown out of the convincer, whereas the belted dummies are kept safe and secure within the convincer. The device is being used with great success all over the state to promote safety belt use. It is housed, transported and maintained by the Vermont Sheriff’s Association.

Young drivers do not get the feeling of being out of control in a vehicle until the situation may put their life in jeopardy. The Skid Monster Program allows a vehicle to demonstrate the feel and consequence of losing control at low speeds. By allowing the loss of control to occur in a controlled environment, young drivers can learn the correct way to recover and avoid crashes as a result of loss of control. The equipment was purchased with 402 funds, but the program continues with 100% local support.

Evaluation

GHSP utilizes a variety of tools to evaluate the success of programs and movement toward our goals. Data must drive the GHSP programs and dictate where to expend resources. Therefore, the state is engaged in major Traffic Records Data Systems improvements. These data improvements involve the Agency of Transportation, police agencies across the state, the Departments of Motor Vehicles, Public Safety and Health, and the Vermont Courts system.

A Law Enforcement Crash Data Analyst researches serious and fatal crashes to provide “fresh” data to allow enforcement to respond tactically to emerging crash trends. While trends for fatal crashes are usually current, other crash data is not as well reported nor analyzed. Law enforcement representatives of all types from all over the state crave current crash data and analysis. A primary responsibility is reporting trends to all agencies on a monthly basis.

The Crash Data Report is an annual compilation of traffic data that allows assessment of progress over time and is used to help guide decisions on expenditure of funds.

Telephone Surveys and NHTSA-sanctioned Observational Surveys are utilized to evaluate the effectiveness of the safety belt mobilization and educational efforts. DPS is also planning Child Restraint Use and Parent CPS Surveys to evaluate the child passenger safety program progress and needs.

The Department of Health administers a Behavioral Risk Survey, and requests a contribution toward costs when questions regarding impaired driving or other highway safety topics are included.

Emergency Medical Services

GHSP contributes funding to the Emergency Medical Services Training Conference. Funding is used to bring in speakers on highway safety issues, which helps keep down the cost of training for local EMS technicians.



Focus on Safety

SHSP Crash Data Analysis

The SHSP stakeholders must make choices between competing safety needs. Those choices are data driven. It is essential to invest time and money in areas that are achievable, and provide the greatest safety improvements for the effort.

To that end, the Vermont Center for Justice Research (VCJR) analyzed crash history and related it to the SHSP emphasis areas. The original analysis covered the years 1999-2003 and is found in Table 3 on page 9 & 10 and Table 5 on page 13. That analysis caused the SHSP Committees to choose the emphasis areas of:

- Keeping vehicles on the road
- Crashes at intersections
- Drivers under the age of 21
- Restraint devices
- Alcohol-related crashes
- Crashes involving speeding and aggressive driving
- Inattention

VTrans and the law enforcement community have made major improvement in collecting crash information. The amount and quality of information has greatly improved over the last two years partly due to training, forms, and a web-based crash entry system.

In March 2008, VCJR analyzed the period 2002 through 2006 as shown in the following three pages. The analysis showed that the general distribution of crashes has not changed significantly. The data based conclusions made in 2005 are still relevant to the direction the SHSP is headed.

Table 1 has also been updated to reflect the fatality information through 2007 and the incapacitating-injury information through 2006. (2007 injury data is not available yet.)

Table 3 to replace the table on page 9 & 10 of the SHSP

**Table 3. Vermont Strategic Highway Safety Plan
Summary of Fatal & Incapacitating Injury* Crashes by Emphasis Areas, 2002-2006**

Emphasis Areas		Vermont incapacitating injury/fatal Crashes*	Percent
Part 1: Drivers	1. Instituting Graduated Licensing for Young Drivers	465 incapacitating injury/fatal crashes involved a driver under the age of 21 (out of 2,232 incapacitating injury/fatal crashes)	20%
	2. Ensuring Drivers are Licensed and Fully Competent	92 Citations for DLS/operating with no license (out of 2,232 incapacitating injury/fatal crashes)	4%
	3. Sustaining Proficiency in Older Drivers	165 incapacitating injury/fatal crashes involved a driver between the ages of 65 and 74	7%
		150 incapacitating injury/fatal crashes involved a driver over the age of 74	7%
	4. Curbing Aggressive Driving	353 incapacitating injury/fatal crashes listed excessive speed, following too closely or driving in erratic, reckless or aggressive manner as a contributing factor	16%
	5. Reducing Impaired Driving	460 incapacitating injury/fatal crashes were alcohol related	21%
	6. Keeping Drivers Alert	345 incapacitating injury/fatal crashes listed inattention or fatigued, asleep as a contributing factor	15%
		141 incapacitating/fatal crashes listed driver's condition as fell asleep, fatigued, etc	6%
Part 2: Special Users	7. Increasing Driver Safety Awareness	-NA-	
	8. Increasing Seat Belt Usage and Improving Airbag Effectiveness	654 vehicle occupants fatally/severely injured (out of 2,638 total fatalities/severe injuries) were not using a restraint device	25%
	9. Making Walking and Street Crossing Easier	149 incapacitating injury/fatal crashes involved pedestrians	7%
	10. Ensuring Safer Bicycle Travel	45 incapacitating injury/fatal crashes involved a bicyclist	2%

**Table 3. Vermont Strategic Highway Safety Plan
Summary of Fatal & Incapacitating Injury Crashes by Emphasis Areas, 2002-2006 (cont'd)**

	Emphasis Areas	Vermont incapacitating injury/fatal Crashes*	Percent
Part 3: Vehicles	11. Improving Motorcycle Safety and Increasing Motorcycle Awareness	240 incapacitating injury/fatal crashes involving motorcycles	11%
	12. Making Truck Travel Safer and Fully Competent	144 incapacitating injury/fatal crashes involving heavy trucks	6%
	13. Increasing Safety Enhancements in Vehicles	-NA-	
Part 4: Highways	14. Reducing Vehicle-Train Crashes	2 incapacitating injury/fatal crashes involving a collision with a train	0%
	15. Keeping Vehicles on the Roadway	823 incapacitating injury/fatal crashes involving running off the road	37%
	16. Minimizing the Consequences of Leaving the Road	Incapacitating injury/fatal run-off the road crashes - Overturned (32.9%) - Collision with tree/large bush (38.4%) - Collision with pole/sign (14.9%) - Collision with guard rail/curb (16.9%) - Collision with other fixed object (13.6%) - Collision with ledge/boulder (11.5%)	
	17. Improving the Design and Operation of Highway Intersections	459 incapacitating injury/fatal crashes at an intersection	21%
	18. Reducing Head-on Crashes	340 incapacitating injury/fatal head-on crashes	15%
	19. Designing Safer Work Zones	9 incapacitating injury/fatal crashes in work zones	0%
Part 5: EMS	20. Enhancing Emergency Medical Capabilities to Increase Survivability	-NA-	
Part 6: Management	21. Improving Information and Decision Support Systems	-NA-	
	22. Creating More Effective Processes and Safety Management Systems	-NA-	

*Source: Vermont Crash Data (2002-2006)

Note: Between 2002 and 2006, there were 2,232 fatal & incapacitating-injury crashes (includes 361 fatalities)

Table 2 to replace the table on Page 13 of the SHSP

**Table 5. Vermont Strategic Highway Safety Plan
Emphasis Areas with Highest Percentages of Fatal & Incapacitating Injury Crashes,
2002-2006**

Emphasis Areas	Vermont Incapacitating injury/fatal Crashes	Percent
Keeping Vehicles on the Roadway	Vehicles leaving the road	37%
Increasing Seat Belt Usage and Improving Airbag Effectiveness	Vehicle occupants with fatality or incapacitating injury unrestrained	25%*
Improving the Design and Operation of Highway Intersections	Crashes at intersection	21%
Reducing Impaired Driving	Alcohol related	21%
Instituting Graduated Licensing for Young Drivers	Drivers under the age of 21	20%
Curbing Aggressive Driving	Aggressive Driving	16%
Keeping Drivers Alert	Inattention	15%

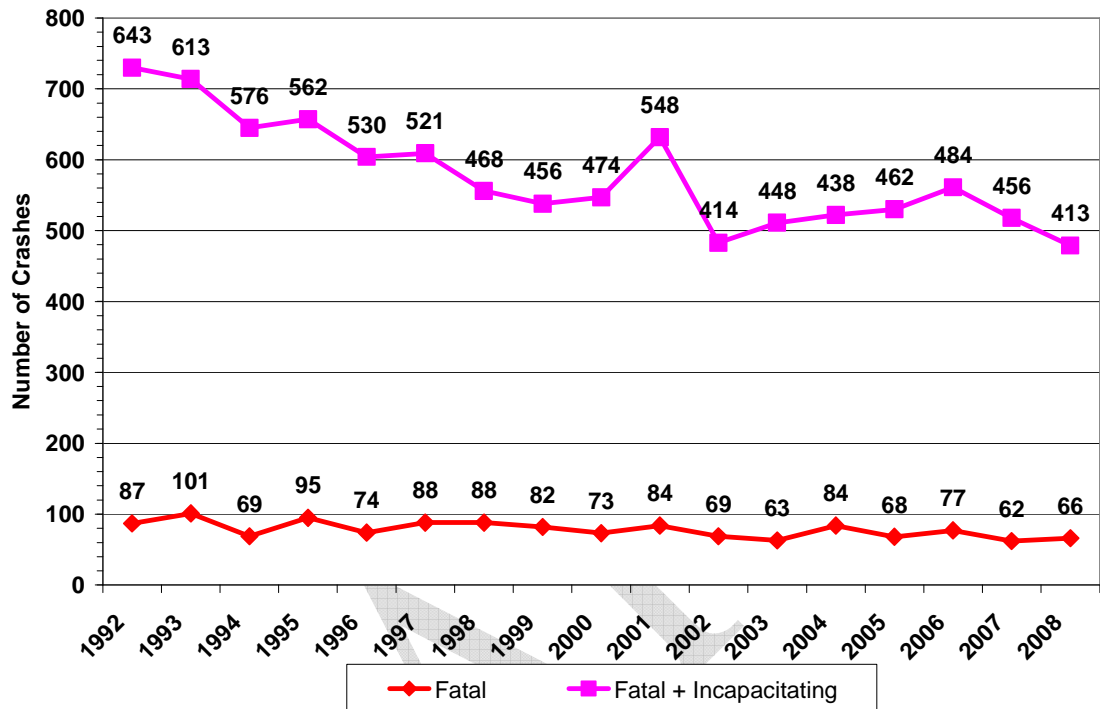
*Percent based upon total incapacitating injuries/fatalities

*Definitions per the National Highway Traffic Safety Administration (NHTSA):

- **Fatal Injury:** Any injury that results in death *within a 30 day period* after the crash occurred.
- **Incapacitating Injury:** Any injury, other than a fatal injury, which prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred. Often defined as “needing help from the scene”.

Figure 1 to replace the figure on page iv of the SHSP

Figure 1: Vermont Incapacitating Injury and Fatal Crashes*, 1992-2007



*Definitions per the National Highway Traffic Safety Administration (NHTSA):

- **Fatal Injury:** Any injury that results in death *within a 30 day period* after the crash occurred.
- **Incapacitating Injury:** Any injury, other than a fatal injury, which prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred. Often defined as “needing help from the scene”.

SHSP Goal statement to replace the “Goal” paragraph on page iv.

The goal of the Vermont Strategic Highway Safety Plan is to reduce the five-year average number of fatal & incapacitating injury crashes to 350 or lower each year by 2012 (from 468 for the 1999-2003 period), representing a reduction of 25%.

Associated goals are:

- To reduce the five-year average number of fatal crashes to 50 or lower and the five-year average number of incapacitating injury crashes to 300 by 2012;
- To reduce the five-year average number of fatalities to 60 or lower and the five-year average number of incapacitating injuries to 350 by 2012.